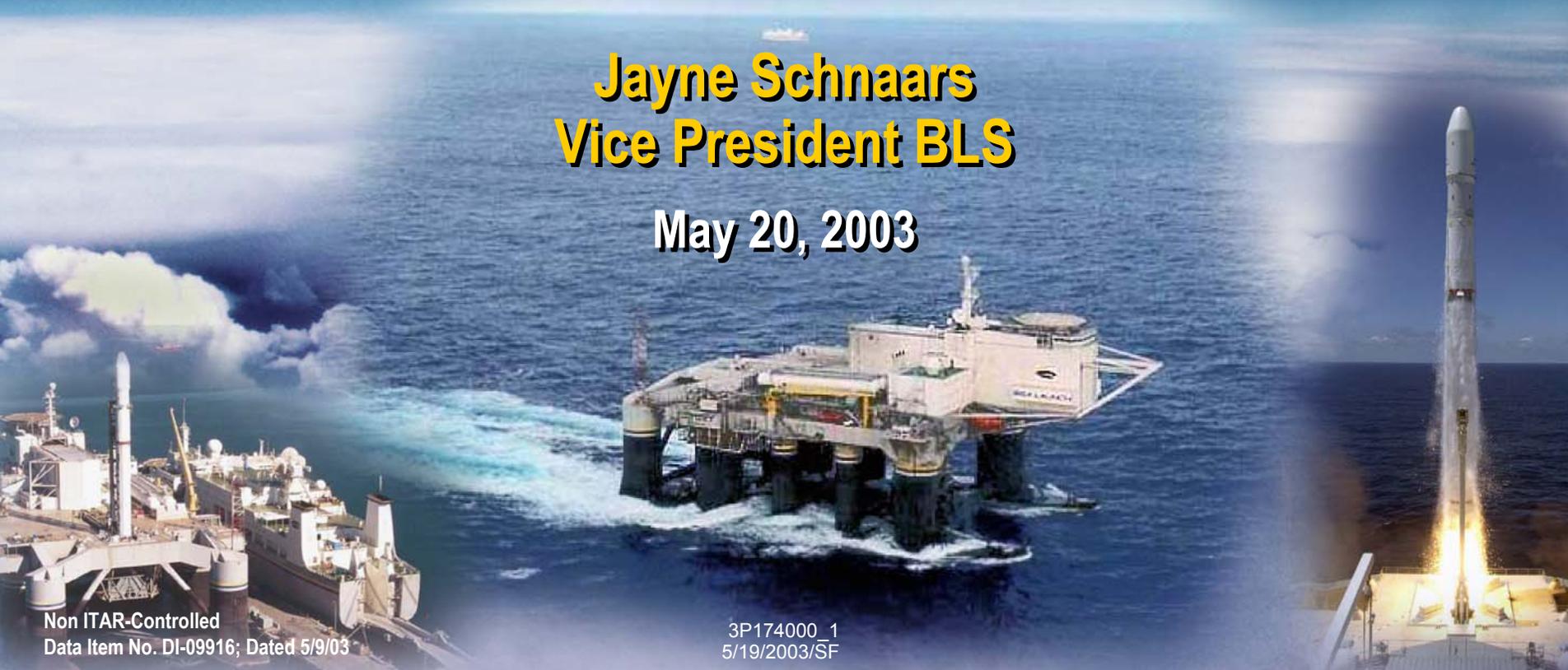




Boeing Launch Services Overview to COMSTAC

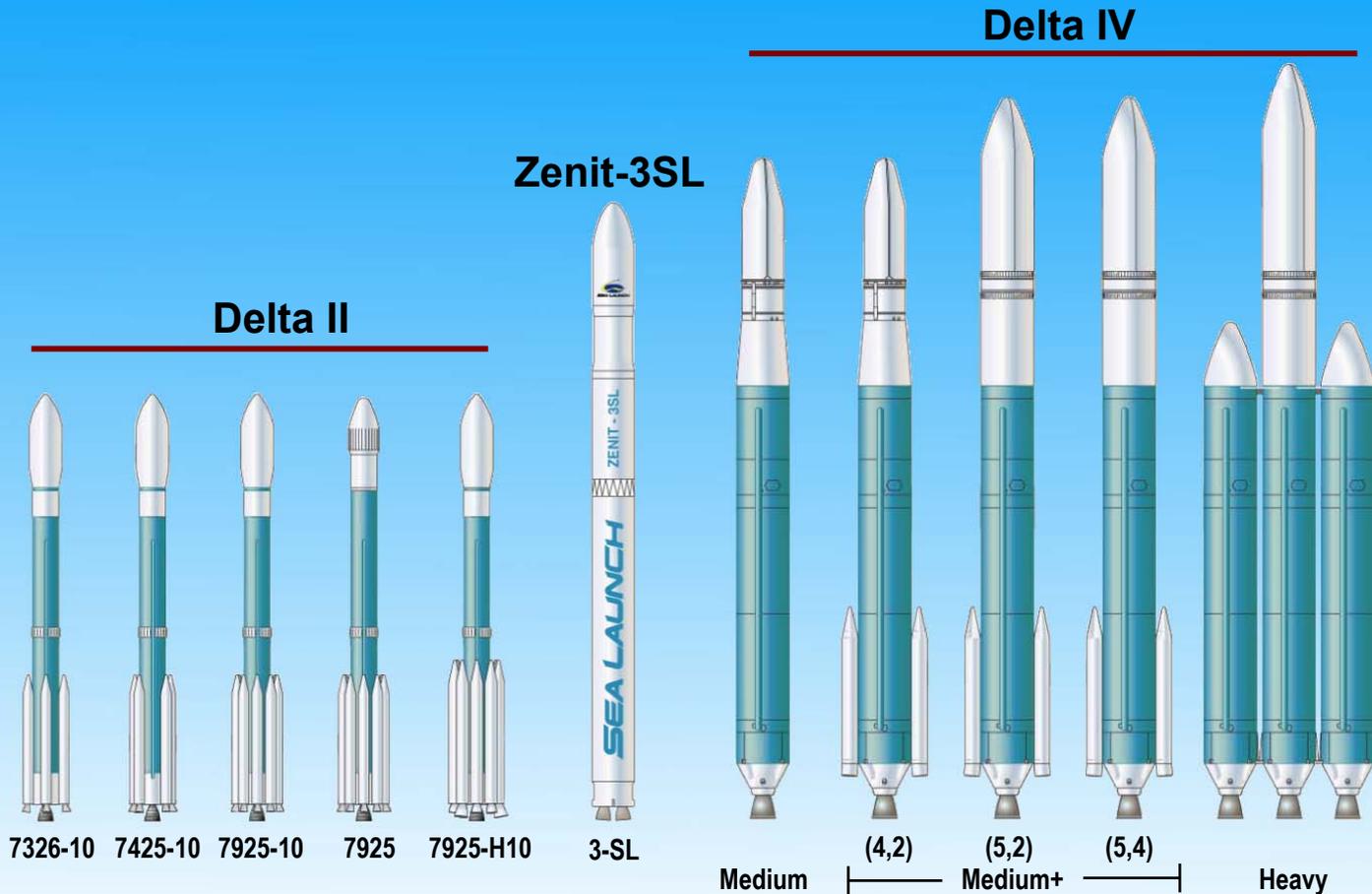


Jayne Schnaars
Vice President BLS

May 20, 2003

Boeing Launch Services Family of Vehicles

A Variety of Options to Meet Customer Needs



GTO kg (lb)	891 (1,965)	1,104 (2,433)	1,769 (3,901)	1,841 (4,058)	2,142 (4,723)	6,000 (13,228)	4,210 (9,285)	5,845 (12,890)	4,640 (10,230)	6,565 (14,475)	13,130 (28,950)
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Flight Proven Launch Systems

Delta II



Sea Launch



Delta IV



- ◆ 98.1% success rate
 - 104/106 launches
- ◆ 40+ years of Delta heritage
- ◆ NASA workhorse
 - Awarded “19-Pack” 12/02

- ◆ 7 successful launches flown
- ◆ Block DM 97% success rate
 - 214/220 launches
- ◆ Up to 6,000 kg capability
- ◆ Competitive commercial offering

- ◆ 2 successful launches
 - 3 launches in '03
- ◆ East & West coast launch sites
- ◆ Won 22 of 29 USAF EELV launches

World Class Launch Systems Infrastructure



9 Delta IIs/year
9 Delta IVs/year

VAFB
Long Beach
Huntington Beach



28 days



Delta Mariner



Delta Launch Vehicle Factory

Decatur

CCAFS

14 days



12 Delta IIs and Delta IIIs/year
17 Delta IVs/year

Delta IV Inaugural Launch Successes

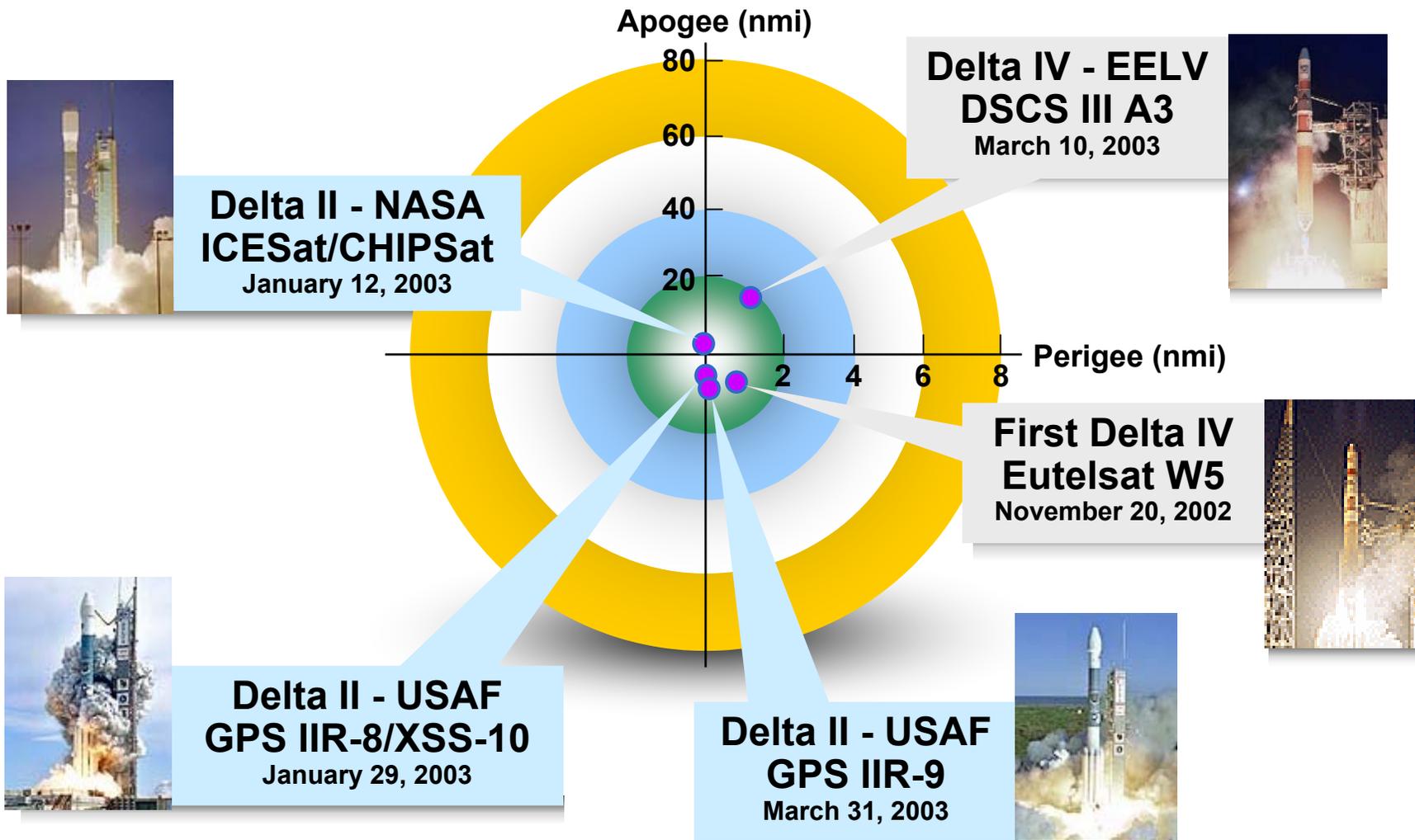


Eutelsat W5
November 20, 2002



DSCS III A3
March 10, 2003

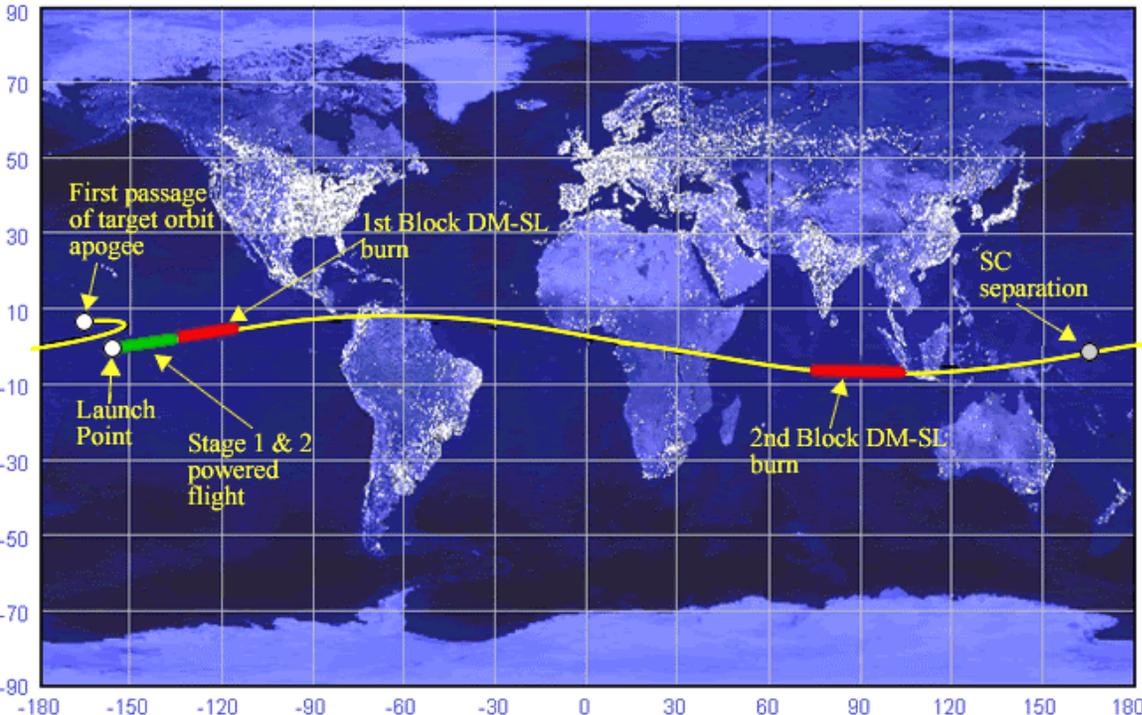
Delta Delivers its Payloads on Target!



Current Sea Launch Mission



Thuraya-2 Ground Track



- ◆ 6,000 kg performance certified for flight early 2003
- ◆ Thuraya-2 5,212 kg (11,490 lb) space craft
- ◆ Bus: Boeing GEM
- ◆ 6.3 degree inclined orbit
 - Optimum for Thuraya
- ◆ Designed for 12-15 years OML
- ◆ Launch scheduled for June 6th

Demonstration of First 6-Ton Sea Launch Configuration

Current BLS Manifest

	2002	2003	2004	2005	2006	2007
 Delta II	3	9	9	6	11	7
 Delta III			4	3		
 Delta IV	1	3	4	5	4	5
 Sea Launch	1	4	5	1		
	5	16	22	15	15	12

Boeing is Committed to the Launch Services Business

Available Capacity Greatly Exceeds Commercial Heavy GTO Demand

New Entries



Atlas V
Successful first flight
21 August



Delta IV
Successful first flight
20 November
EELV successful first
flight 10 March



Ariane 5 ECA
Failed first launch
11 December



Delta IV



Sea Launch



Ariane 5



Atlas V



Proton

Capacity/yr

17 9

6-7

8-10

12

10-15

Launch Site

CCAFS VAFB

Equator

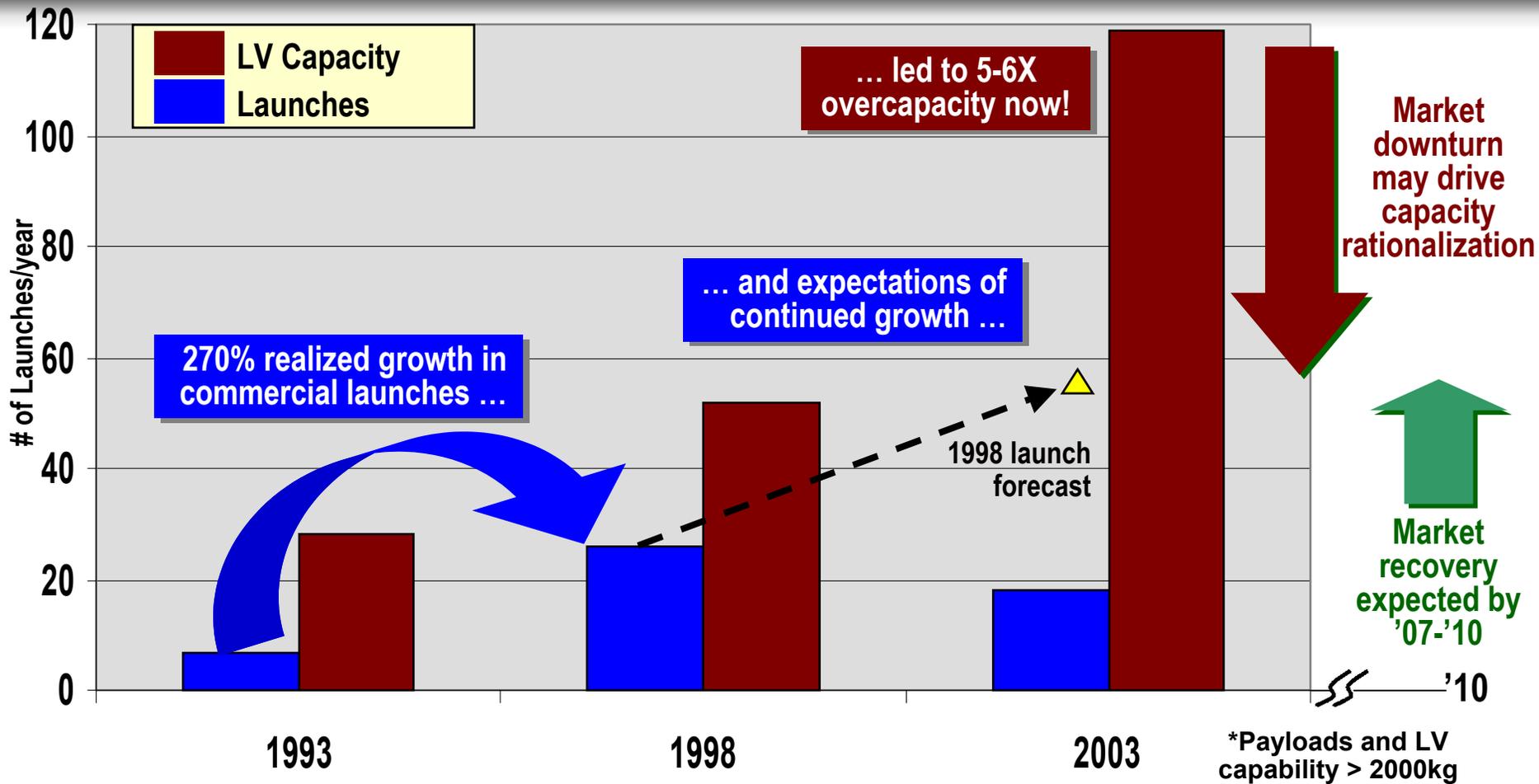
Kourou

CCAFS

Baikonur

Oversupply in LV Market: Capacity of 70 Launches/yr With Demand of 15-20 Launches/yr

What Drove New Launch Vehicle Developments?



Realized and Projected Market Growth Drove Increase in Capacity

Summary

- ◆ **Impact of market downturn**
 - Declining demand
 - Overcapacity
 - Falling prices
- ◆ **Boeing Launch Services**
 - Delta IV focused on government market
 - Sea Launch is primary commercial offering
 - Delta II through 2010+
 - Positioning for near-term profitability in down market